What is claimed is:

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1. A method of forming a conductor comprising:

depositing an insulator over a planarized surface;

etching a trench having a depth on the insulator;

depositing a barrier layer on the insulator;

depositing a seed layer on the barrier layer;

removing the barrier layer and seed layer from selected areas of the insulator, leaving a seed area; and

depositing a conductor on the seed area by a selective deposition process.

2. The method of claim 1, wherein depositing the barrier layer on the insulator comprises:

depositing the barrier layer on the insulator by physical vapor-deposition.

3. The method of claim 1, wherein etching a trench on the insulator comprises: etching the trench to a depth of about equal to the depth of the insulator.

4. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench on the oxide layer;

depositing a barrier layer on the oxide layer;

depositing a seed layer on the barrier layer;

removing the barrier layer and seed layer from unused areas of the oxide layer, leaving a seed area; and

depositing a conductor on the seed area.

5. The method of claim 4, wherein depositing an oxide layer over a planarized surface comprises:

depositing a silicon dioxide layer over the planarized surface.

6. The method of claim 4, wherein depositing an oxide layer over a planarized surface comprises:

depositing a fluorinated silicon oxide layer over the planarized surface.

7. The method of claim 4, wherein depositing a seed layer on the barrier layer comprises:

depositing the seed layer on the barrier layer by physical vapor-deposition.

~~8.~~ A method of forming a conductor comprising:

depositing a polymer layer over a planarized surface;

etching a trench on the polymer layer;

depositing a barrier layer on the polymer layer;

depositing a seed layer on the polymer layer;

removing the seed layer from selected areas of the polymer layer, leaving a seed area; and

depositing a conductor on the seed area.

9. The method of claim 8, wherein depositing a polymer layer over a planarized surface comprises:

depositing a polyimide layer over the planarized surface.

10. The method of claim 8, wherein depositing a polymer layer over a planarized surface comprises:

depositing a foamed polymer layer over the planarized surface.

11. The method of claim 8, wherein depositing a seed layer on the polymer layer comprises:

depositing the seed layer on the polymer by physical vapor-deposition.

12. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench on the oxide layer;

depositing a barrier layer tantalum on the oxide layer;

depositing a seed layer selected from the group consisting of gold, silver, and copper on the oxide layer;

removing the barrier layer and seed layer from unused areas of the oxide layer, leaving a seed area; and

depositing a conductor on the seed area.

13. The method of claim 12, wherein depositing a barrier layer tantalum on the oxide layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

14. The method of claim 12, wherein depositing the barrier layer of tantalum and gold on the oxide layer comprises:

depositing the barrier layer by physical vapor-deposition.

15. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench on the oxide layer;

depositing a barrier layer tantalum on the oxide layer;

depositing a seed layer of gold on the oxide layer;

removing the barrier layer and seed layer from selected areas of the oxide layer, leaving a seed area; and

depositing gold on the seed area.

16. The method of claim 15, wherein depositing a barrier layer tantalum on the oxide layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

17. The method of claim 15, wherein depositing the barrier layer of tantalum and gold on the oxide layer comprises:

depositing the barrier layer by physical vapor-deposition.

18. The method of claim 15, wherein depositing gold on the seed area comprises:

depositing gold on the seed area by electroless plating.

19. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench on the oxide layer;

depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the oxide layer;

depositing a seed layer of silver on the oxide layer;

removing the barrier layer and seed layer from selected areas of the oxide layer, leaving a seed area; and

depositing silver on the seed area.

20. The method of claim 19, wherein depositing the barrier layer of titanium and silver on the oxide layer comprises:

depositing the barrier layer by physical vapor-deposition.

21. The method of claim 19, wherein depositing a seed layer of titanium and silver on the oxide layer comprises:

depositing the seed layer of titanium and silver to a depth of between fifty angstroms and two-thousand angstroms.

22. The method of claim 19, wherein depositing silver on the seed area comprises:

depositing silver on the seed area by electroless plating.

23. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench on the oxide layer;

depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the oxide layer;

depositing a seed layer of copper on the oxide layer;

removing the barrier layer and seed layer from selected areas or unused areas of the oxide layer, leaving a seed area; and

depositing aluminum on the seed area.

24. The method of claim 23, wherein depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the oxide layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

25. The method of claim 23, wherein depositing the barrier layer of titanium and aluminum on the oxide layer comprises:

depositing the barrier layer by physical vapor-deposition.

26. The method of claim 23, wherein depositing copper on the seed area comprises:

depositing aluminum on the seed area by selective chemical vapor-deposition (CVD).

27. A method of forming a conductor comprising:

depositing a polymer layer over a planarized surface;

etching a trench on the polymer layer;

depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the polymer layer;

depositing a seed layer selected from the group consisting of gold, silver, and copper on the polymer layer;

removing the barrier layer and seed layer from selected areas of the polymer layer, leaving a seed area; and

depositing a conductor on the seed area.

28. The method of claim 27, wherein depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the oxide layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

29. The method of claim 27, wherein depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the polymer layer comprises:

depositing the barrier layer by physical vapor-deposition.

30. A method of forming a conductor comprising:

depositing a polymer layer over a planarized surface;

etching a trench on the polymer layer;

depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the polymer layer;

depositing a seed layer of gold on the polymer layer;

removing the barrier layer and seed layer from selected areas or unused areas of the polymer layer, leaving a seed area; and

depositing gold on the seed area.

31. The method of claim 30, wherein depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the oxide layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

32. The method of claim 30, wherein depositing a barrier layer selected form the group consisting of titanium, zirconium, and hafnium on the oxide layer comprises:

depositing the barrier layer by physical vapor-deposition.

33. The method of claim 30, wherein depositing gold on the seed area comprises:

depositing gold on the seed area by electroless plating.

34. A method of forming a conductor comprising:

depositing a polymer layer over a planarized surface;

etching a trench on the polymer layer;

depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the polymer layer;

depositing a seed layer of silver on the polymer layer;

removing the barrier layer and seed layer from selected areas of the polymer layer, leaving a seed area; and

depositing silver on the seed area.

35. The method of claim 34, wherein depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the oxide layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

36. The method of claim 34, wherein depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the polymer layer comprises:

depositing the barrier layer by physical vapor-deposition.

37. The method of claim 34, wherein depositing silver on the seed area comprises:

depositing silver on the seed area by electroless plating.

~~38.~~ A method of forming a conductor comprising:

depositing a polymer layer over a planarized surface;

etching a trench on the polymer layer;

depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the polymer layer;

depositing a seed layer of copper on the polymer layer;

removing the barrier layer and seed layer from unused areas of the polymer layer, leaving a seed area; and

depositing copper on the seed area.

39. The method of claim 38, wherein depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the polymer layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

40. The method of claim 38, wherein depositing a barrier layer selected from the group consisting of titanium, zirconium, and hafnium on the polymer layer comprises:

depositing the barrier layer by physical vapor-deposition.

41. The method of claim 38, wherein depositing copper on the seed area comprises:

depositing copper on the seed area by electroless plating.

42. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench on the oxide layer;

depositing a barrier layer selected from the group consisting of zirconium and titanium on the oxide layer;

depositing a seed layer of aluminum-copper on the oxide layer;

removing the barrier layer and seed layer from selected areas of the oxide layer, leaving a seed area; and

depositing a conductor on the seed area.

43. The method of claim 42, wherein depositing a barrier layer selected from the group consisting of zirconium and titanium on the oxide layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

44. The method of claim 42, wherein depositing the barrier layer selected from the group consisting of zirconium and titanium on the oxide layer comprises:

depositing the barrier layer by physical vapor-deposition.

45. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench on the oxide layer;

depositing a barrier layer of zirconium on the oxide layer;

depositing a seed layer of aluminum-copper on the oxide layer;

removing the barrier layer and seed layer from selected areas of the oxide layer, leaving a seed area; and

depositing aluminum on the seed area.

46. The method of claim 45, wherein depositing a barrier layer of zirconium on the oxide layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

47. The method of claim 45, wherein depositing a barrier layer of zirconium on the oxide layer comprises:

depositing the barrier layer by physical vapor-deposition.

48. The method of claim 45, wherein depositing aluminum on the seed area comprises:

depositing aluminum on the seed area by chemical vapor-deposition.

49. The method of claim 45, wherein depositing aluminum on the seed area comprises:

depositing an amount of aluminum sufficient to fill the trench.

50. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench on the oxide layer;

depositing a barrier layer of titanium on the oxide layer;

depositing a seed layer of aluminum-copper on the oxide layer;

removing the barrier layer and seed layer from selected areas or unused areas of the oxide layer, leaving a seed area; and

depositing aluminum on the seed area.

51. The method of claim 50, wherein depositing a barrier layer of titanium on the oxide layer comprises:

depositing the barrier layer to a depth of between fifty angstroms and one-thousand angstroms.

52. The method of claim 50, wherein depositing a barrier layer of titanium on the oxide layer comprises:

depositing the barrier layer by physical vapor-deposition.

53. The method of claim 50, wherein depositing aluminum on the seed area comprises:

depositing aluminum on the seed area by chemical vapor-deposition.

54. The method of claim 50, wherein depositing a seed layer of titanium on the oxide layer comprises:

depositing the seed layer of titanium on the oxide layer by chemical vapor-deposition.

55. The method of claim 50, wherein depositing aluminum on the seed area comprises:

depositing an amount of aluminum sufficient to fill the trench.

56. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench having a top on the oxide layer;

depositing a barrier layer of tantalum nitride on the oxide layer;

depositing a seed layer of copper on the tantalum nitride layer;

removing the barrier layer and seed layer from selected areas of the oxide layer;

depositing a conductor on the seed area leaving a seed area; and

depositing a layer of tantalum nitride above the conductor.

57. The method of claim 56, wherein depositing a barrier layer of tantalum nitride on the oxide layer comprises:

depositing approximately one-hundred angstroms of tantalum nitride.

58. The method of claim 56, wherein depositing a seed layer of copper on the tantalum nitride layer comprises:

depositing approximately five-hundred angstroms of copper on the tantalum nitride layer.

59. The method of claim 56, wherein depositing a barrier layer of tantalum nitride on the oxide layer comprises:

depositing the barrier layer of tantalum nitride by a non-anisotropic deposition technique.

60. The method of claim 56, wherein depositing a seed layer of copper on the barrier layer of tantalum nitride comprises:

depositing the seed layer of copper on the tantalum nitride layer by a non-anisotropic deposition technique.

61. The method of claim 56, wherein depositing a barrier layer of tantalum nitride on the oxide layer comprises:

depositing the barrier layer of tantalum nitride to a depth of between fifty angstroms and one-thousand angstroms.

62. The method of claim 56, wherein depositing a barrier layer of tantalum nitride on the oxide layer comprises:

depositing the barrier layer of tantalum nitride on the oxide layer by chemical vapor-deposition.

63. The method of claim 56, wherein depositing a seed layer of copper on the layer of tantalum nitride comprises:

depositing the seed layer copper on the barrier layer to a depth of approximately five-hundred angstroms below the top of the trench.

64. The method of claim 56, wherein depositing a barrier layer of tantalum nitride above the conductor comprises:

depositing the barrier layer of tantalum nitride above the conductor to a depth of approximate five-hundred angstroms.

65. The method of claim 56, wherein depositing an oxide layer over a planarized surface comprises:

depositing a silicon dioxide layer over the planarized surface.

66. The method of claim 56, wherein depositing an oxide layer over a planarized surface comprises:

depositing a fluorinated silicon oxide layer over the planarized surface.

67. A method of forming a conductor comprising:

depositing an oxide layer over a planarized surface;

etching a trench having a top on the oxide layer;

depositing a barrier layer of tantalum nitride on the oxide layer;

depositing a seed layer of copper on the oxide layer;

removing the barrier layer and seed layer from selected areas of the oxide layer, leaving a seed area;

depositing a layer of copper on the seed area; and

depositing a layer of tantalum nitride above the layer of copper.

68. The method of claim 67, wherein depositing a barrier layer of tantalum nitride on the oxide layer comprises:

depositing approximately one-hundred angstroms of tantalum nitride.

69. The method of claim 67, wherein depositing a seed layer of copper on the oxide layer comprises:

depositing approximately five-hundred angstroms of copper on the oxide layer.

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70. The method of claim 67, wherein depositing a barrier layer of tantalum nitride on the oxide layer comprises:

depositing the barrier layer of tantalum nitride by a non-anisotropic deposition technique.

71. The method of claim 67, wherein depositing a barrier layer of tantalum nitride on the oxide layer comprises:

depositing the barrier layer of tantalum nitride to a depth of between fifty angstroms and one-thousand angstroms.

72. The method of claim 67, wherein depositing a barrier layer of tantalum nitride on the oxide layer comprises:

depositing the barrier layer of tantalum nitride on the oxide layer by chemical vapor-deposition.

73. The method of claim 67, wherein depositing a layer of copper on the seed area comprises:

depositing the layer of copper on the seed area by chemical vapor-deposition.

74. The method of claim 67, wherein depositing a layer of copper on the seed area comprises:

depositing the layer of copper on the seed area to a depth of approximately five-hundred angstroms below the top of the trench.

75. The method of claim 67, wherein depositing a layer of tantalum nitride above the copper comprises:

depositing the layer of tantalum nitride above the copper to a depth of approximate five-hundred angstroms.

76. ~~The method of claim 67, wherein depositing an oxide layer over a planarized surface comprises:~~

~~depositing a silicon dioxide layer over the planarized surface.~~

77. ~~The method of claim 67, wherein depositing an oxide layer over a planarized surface comprises:~~

~~depositing a fluorinated silicon oxide layer over the planarized surface.~~

~~78.~~ ~~A connective structure comprising:~~

~~an insulator above a planarized surface, the insulator having a trench, the trench having a trench surface;~~

~~a barrier layer above the trench surface;~~

~~a seed layer above the barrier layer; and~~

~~a conductor above the seed layer.~~

79. ~~The connective structure of claim 78, wherein the insulator has a depth, the trench has a depth and the depth of the trench is about equal to the depth of the insulator.~~

~~80.~~ ~~A connective structure comprising:~~

~~an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;~~

~~a barrier layer above the trench surface;~~

~~a seed layer above the barrier layer; and~~

~~a conductor above the seed layer.~~

81. ~~The connective structure of claim 80, wherein the oxide layer is a silicon dioxide layer.~~

82. The connective structure of claim 80, wherein the oxide layer is a fluorinated silicon oxide layer.

~~83.~~ A connective structure comprising:

a polymer layer above the planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer above the trench surface;

a seed layer above the barrier layer; and

a conductor above the seed layer.

84. The connective structure of claim 83, wherein the polymer layer is a polyimide layer.

85. The connective structure of claim 83, wherein the polymer layer is a foamed polymer layer.

~~86.~~ A connective structure comprising:

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer tantalum above the trench surface;

a seed layer selected from the group consisting of gold, silver, and copper above the barrier layer; and

a conductor above the seed layer.

87. The connective structure of claim 86, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

88. A connective structure comprising:

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer tantalum above the trench surface;

a seed layer of gold above the barrier layer; and

a gold layer above the seed layer.

89. The connective structure of claim 88, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

~~90.~~ A connective structure comprising:

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer tantalum above the trench surface; and

a gold layer above the barrier layer.

~~91.~~ A connective structure comprising: GA

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer tantalum above the trench surface;

a seed layer of silver above the barrier layer; and

a silver layer above the barrier layer.

92. The connective structure of claim 91, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

~~93.~~ A connective structure comprising:

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;
a barrier layer tantalum above the trench surface; and
a silver layer above the barrier layer.

94. A connective structure comprising:
an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;
a barrier layer tantalum above the trench surface;
a seed layer of copper above the barrier layer; and
a copper layer above the seed layer.

95. The connective structure of claim 94, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

96. A connective structure comprising:
an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;
a barrier layer tantalum above the trench surface; and
a copper layer above the barrier layer.

97. A connective structure comprising:
a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;
a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface;
a seed layer selected from the group consisting of gold, silver, and copper above the barrier layer; and

a conductor layer above the seed layer.

98. The connective structure of claim 97, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

99. A connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface;

a seed layer of gold above the barrier layer; and

a gold layer above the seed layer.

100. The connective structure of claim 99, wherein the barrier layer has a depth of between fifty and one-thousand angstroms.

101. A connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface; and

a gold layer above the barrier layer.

~~102.~~ A connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface;

a seed layer of silver above the barrier layer; and

a silver layer above the seed layer.

103. The connective structure of claim 102, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

104. A connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface; and

a silver layer above the barrier layer.

105. A connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface;

a seed layer of copper above the barrier layer; and

a copper layer above the seed layer.

106. The connective structure of claim 105, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

107. A connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface;

a seed layer of copper above the barrier layer; and

a copper layer above the seed layer.

108. A connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of zirconium and titanium above the trench surface;

a seed layer of aluminum-copper above the barrier layer; and

a conductor above the seed layer.

109. The connective structure of claim 108, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

110. A connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer selected of zirconium above the trench surface;

a seed layer of aluminum-copper above the barrier layer; and

an aluminum layer above the seed layer.

111. The connective structure of claim 110, wherein the barrier layer has a depth of between fifty and one-thousand angstroms.

112. The connective structure of claim 110, wherein the aluminum layer fills the trench.

113. A connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer of titanium above the trench surface;

a seed layer of aluminum-copper above the barrier layer; and

an aluminum layer above the seed layer.

114. The connective structure of claim 113, wherein the barrier layer has a depth o between fifty angstroms and one-thousand angstroms.

115. The connective structure of claim 113, where the aluminum layer fills the trench.

116. A connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer of tantalum nitride above the trench surface;

a seed layer of copper above the barrier layer;

an conductor layer above the seed layer; and

a tantalum nitride layer above the conductor layer.

117. The connective structure of claim 116, wherein the depth of the barrier layer is approximately one-hundred angstroms.

118. The connective structure of claim 116, wherein the seed layer is approximately five-hundred angstroms of copper.

119. The connective structure of claim 116, wherein the barrier layer is between fifty angstroms and one-thousand angstroms.

120. The connective structure of claim 116, wherein the trench has a top and the seed layer is approximately five-hundred angstroms below the top of the trench.

121. The connective structure of claim 116, wherein the barrier layer has a depth of approximately five-hundred angstroms.

122. The connective structure of claim 116, wherein the oxide layer is a silicon dioxide layer.

123. The connective structure of claim 116, wherein the oxide layer is a fluorinated silicon oxide layer.

124. A connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer of tantalum nitride above the trench surface;

a seed layer of copper above the barrier layer;

a copper layer above the seed layer; and

a tantalum nitride layer above the copper layer.

125. The connective structure of claim 124, wherein the barrier layer has a depth of approximately one-hundred angstroms.

126. The connective structure of claim 124, wherein the seed layer has a depth of approximately five-hundred angstroms.

127. The connective structure of claim 124, wherein the barrier layer has a depth of between approximately fifty angstroms and one-thousand angstroms.

128. The connective structure of claim 124, wherein the trench has a top and the copper is approximately five-hundred angstroms below the top of the trench.

129. The connective structure of claim 124, wherein the tantalum nitride above the copper is deposited to a depth of approximately five-hundred angstroms.

130. The connective structure of claim 124, wherein the oxide layer is a silicon dioxide layer.

131. The connective structure of claim 124, wherein the oxide layer is a fluorinated silicon oxide layer. a

~~132.~~ A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

an insulator above a planarized surface, the insulator having a trench, the trench having a trench surface;

a barrier layer above the trench surface;

a seed layer above the barrier layer; and

a conductor above the seed layer.

133. The computer system of claim 132, wherein the insulator has a depth, the trench has a depth and the depth of the trench is about equal to the depth of the insulator.

134. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer above the trench surface;

a seed layer above the barrier layer; and

a conductor above the seed layer.

135. The computer system of claim 134, wherein the oxide layer is a silicon dioxide layer.

136. The computer system of claim 134, wherein the oxide layer is a fluorinated silicon oxide layer.

137. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

a polymer layer above the planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer above the trench surface;
a seed layer above the barrier layer; and
a conductor above the seed layer.

138. The computer system of claim 137, wherein the polymer layer is a polyimide layer.

139. The computer system of claim 137, wherein the polymer layer is a foamed polymer layer.

140. A computer system comprising:
a processor;
a device coupled to the processor; and
a connective structure coupled to the device, the connective structure comprising:
an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;
a barrier layer tantalum above the trench surface;
a seed layer selected from the group consisting of gold, silver, and copper above the barrier layer; and
a conductor above the seed layer.

141. The computer system of claim 140, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

142. A computer system comprising:
a processor;
a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer tantalum above the trench surface;

a seed layer of gold above the barrier layer; and

a gold layer above the seed layer.

143. The computer system of claim 142, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

144. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer tantalum above the trench surface; and

a gold layer above the barrier layer.

145. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, and the connective structure comprising:

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer tantalum above the trench surface;
a seed layer of silver above the barrier layer; and
a silver layer above the barrier layer.

146. The computer system of claim 145, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

~~147.~~ A computer system comprising:
a processor;
a device coupled to the processor; and
a connective structure coupled to the device, the connective structure comprising:
an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;
a barrier layer tantalum above the trench surface; and
a silver layer above the barrier layer.

1~~48~~. A computer system comprising:
a processor;
a device coupled to the processor; and
a connective structure coupled to the device, the connective structure comprising:
an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;
a barrier layer tantalum above the trench surface;
a seed layer of copper above the barrier layer; and
a copper layer above the seed layer.

149. The computer system of claim 148, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

~~150~~. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

an oxide layer above the planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer tantalum above the trench surface; and

a copper layer above the barrier layer.

~~151~~. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer tantalum above the trench surface;

a seed layer selected from the group consisting of gold, silver, and copper above the barrier layer; and

a conductor layer above the seed layer.

152. The computer system of claim 151, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

153. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface;

a seed layer of gold above the barrier layer; and

a gold layer above the seed layer.

154. The computer system of claim 153, wherein the barrier layer has a depth of between fifty and one-thousand angstroms.

155. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, and the connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface; and

a gold layer above the barrier layer.

156. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface;

a seed layer of silver above the barrier layer; and

a silver layer above the seed layer.

157. The computer system of claim 156, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

~~158~~. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface; and

a silver layer above the barrier layer.

159. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface;

a seed layer of copper above the barrier layer; and

a copper layer above the seed layer.

160. The computer system of claim 159, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

161. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

a polymer layer above a planarized surface, the polymer layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of titanium, zirconium, and hafnium above the trench surface;

a seed layer of copper above the barrier layer; and

a copper layer above the seed layer.

162. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer selected from the group consisting of zirconium and titanium above the trench surface;

a seed layer of aluminum-copper above the barrier layer; and

a conductor above the seed layer.

163. The computer system of claim 162, wherein the barrier layer has a depth of between fifty angstroms and one-thousand angstroms.

164. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, and the connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer selected of zirconium above the trench surface;

a seed layer of aluminum-copper above the barrier layer; and

an aluminum layer above the seed layer.

165. The computer system of claim 164, wherein the barrier layer has a depth of between fifty and one-thousand angstroms.

166. The computer system of claim 164, wherein the aluminum layer fills the trench.

167. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer of titanium above the trench surface;

a seed layer of aluminum-copper above the barrier layer; and

an aluminum layer above the seed layer.

168. The computer system of claim 167, wherein the barrier layer has a depth o between fifty angstroms and one-thousand angstroms.

169. The computer system of claim 167, where the aluminum layer fills the trench.

170. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer of tantalum nitride above the trench surface;

a seed layer of copper above the barrier layer;

an conductor layer above the seed layer; and

a tantalum nitride layer above the conductor layer.

171. The computer system of claim 170, wherein the depth of the barrier layer is approximately one-hundred angstroms.

172. The computer system of claim 170, wherein the seed layer is approximately five-hundred angstroms of copper.

173. The computer system of claim 170, wherein the barrier layer is between fifty angstroms and one-thousand angstroms.

174. The computer system of claim 170, wherein the trench has a top and the seed layer is approximately five-hundred angstroms below the top of the trench.

175. The computer system of claim 170, wherein the barrier layer has a depth of approximately five-hundred angstroms.

176. The computer system of claim 170, wherein the oxide layer is a silicon dioxide layer.

177. The computer system of claim 170, wherein the oxide layer is a fluorinated silicon oxide layer.

178. A computer system comprising:

a processor;

a device coupled to the processor; and

a connective structure coupled to the device, the connective structure comprising:

an oxide layer above a planarized surface, the oxide layer having a trench, the trench having a trench surface;

a barrier layer of tantalum nitride above the trench surface;
a seed layer of copper above the barrier layer;
a copper layer above the seed layer; and
a tantalum nitride layer above the copper layer.

179. The computer system of claim 178, wherein the barrier layer has a depth of approximately one-hundred angstroms.

180. The computer system of claim 178, wherein the seed layer has a depth of approximately five-hundred angstroms.

181. The computer system of claim 178, wherein the barrier layer has a depth of between approximately fifty angstroms and one-thousand angstroms.

182. The computer system of claim 178, wherein the trench has a top and the copper is approximately five-hundred angstroms below the top of the trench.

183. The computer system of claim 178, wherein the tantalum nitride above the copper is deposited to a depth of approximately five-hundred angstroms.

184. The computer system of claim 178, wherein the oxide layer is a silicon dioxide layer.

185. The computer system of claim 178, wherein the oxide layer is a fluorinated silicon oxide layer.